Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for improving receive performance in a data network, the method comprising:

receiving ~~a plurality of indications~~ an indication denoting the start of frame transmission of a flow sensitive to out-of-order frame sequences on a corresponding plurality of communication links;

identifying the start of a the flow by analyzing information embedded within at least one received frame;

dedicating a receive buffer from a plurality of receive buffers to receive all frames associated with the identified flow; and

assigning a pointer value to each frame for storage within a pointer buffer, each pointer value being based, at least in part, on a relative order in which the indications of start of frame transmissions associated with each frame are received, each pointer value associated with each respective frame being used to preserve a state of frame transmission order according to complete reception of the frame without modifying the respective frame.

2. (Previously Presented) The method of claim 1, wherein identifying the start of the flow includes analyzing information embedded within each of the received frames, the information includes one or more of the following: source information, destination information, and quality of service associated with said received frame.

3. (Previously Presented) The method of claim 1, wherein prior to assigning the pointer value, the method further comprising determining whether the identified flow requires preservation of transmission order.

4. (Previously Presented) The method of claim 3, wherein prior to assigning the pointer value, the method further comprising promoting frames of the received flow in the order received, unless it is determined flow requires preservation of frame order.

5. (Previously Presented) The method of claim 4, further comprising creating a list of pointer values corresponding to transmission order only if it is determined that the identified flow requires preservation of transmission order.

6. (Previously Presented) The method of claim 1, wherein prior to assigning the pointer value, the method further comprising promoting the received frames from the dedicated receive buffer in the order received, without regard to frame transmission order, unless it is determined that the identified flow requires preservation of transmission order.

7. (Original) The method of claim 6, further comprising determining whether the identified flow requires preservation of transmission order by analyzing protocol identification information embedded within the received frames.

8. (Previously Presented) The method of claim 1, wherein the receive buffer order does not correspond to the order of frame transmission.

9-20. (Canceled)

21. (Currently Amended) A medium having embodied thereon a program for processing by a network device, the program comprising:

a module to receive an indication to denote commencement of a flow of frame transmissions, the flow being sensitive to out-of-order frame sequences;

a module to indicate at least one receive buffer to receive all frames associated with the flow; and

a module to assign a pointer value to each frame without modification of a frame, the pointer value being based, at least in part, on a relative order in which the indications of commencement of frame transmissions associated with each frame are received, the

corresponding pointer value associated with each respective frame being used to preserve a state of frame transmission order according to complete reception of the frame.

22. (Previously Presented) The medium of claim 21, wherein the program further comprises a module to promote frames of the received flow in the order received, unless it is determined flow requires preservation of frame order.

23. (Previously Presented) The medium of claim 21, wherein the program further comprises a module to assign a pointer value to each frame of the identified flow corresponding to commencement of transmission, creating a list of pointer values corresponding to transmission order only if it is determined that the identified flow requires preservation of transmission order.

24. (Cancelled)

25. (Currently Amended) Adapted for a data network including a plurality of communication links, a method comprising:

receiving at least one indication denoting a start of frame transmission of a flow sensitive to out-of-order frame sequences on the corresponding plurality of communication links;

identifying a received indication denotes commencement of ~~a~~ the flow;

dedicating a buffer from a plurality of buffers to receive all frames associated with the identified flow;

determining whether the identified flow requires preservation of frame transmission order; and

assigning a pointer value to each frame without modification of a frame, the pointer value being based, at least in part, on a relative order in which the indications of start of frame transmissions associated with each frame are received, the corresponding pointer value associated with each respective frame being used to preserve a state of frame transmission order according to complete reception of the frame.

26. (Previously Presented) The method of claim 25, wherein identifying the start of flow includes analyzing information embedded within each of the received frames to determine source and destination information associated with said frames.

27. (Previously Presented) The method of claim 25 wherein the relying on the received indications comprises promoting frames of the received flow in the order received, unless it is determined flow requires preservation of frame transmission order.

28. (Previously Presented) The method of claim 25 further comprising creating a list of pointer values corresponding to transmission order only if it is determined that the identified flow requires preservation of frame transmission order.

29. (Previously Presented) The method of claim 28, further comprising promoting the received frames from the dedicated buffer in the order received, without regard to frame transmission order, unless it is determined that the identified flow requires preservation of frame transmission order.

30. (Previously Presented) The method of claim 25, further comprising determining whether the identified flow requires preservation of frame transmission order by analyzing protocol identification information embedded within the received frames.

31. (Previously Presented) The method of claim 25, wherein the buffer order does not correspond to the order of frame transmission.

32. (Currently Amended) A network device comprising:

means for receiving an indication to denote commencement of a flow of frame transmissions, the flow being sensitive to out-of-order frame sequences;

means for indicating at least one receive buffer to receive all frames associated with the flow; and

means for assigning a pointer value to each frame without modification of a frame, the pointer value being based, at least in part, on a relative order in which the indications of commencement of frame transmissions associated with each frame are received, the corresponding pointer value associated with each respective frame being used to preserve a state of frame transmission order according to complete reception of the frame.

33. (Previously Presented) The network device of claim 32, further comprising a means for promoting frames of the received flow in the order received, unless it is determined flow requires preservation of frame order.

34. (Previously Presented) The network device of claim 32, further creating a list of pointer values corresponding to transmission order if it is determined that the identified flow requires preservation of transmission order.

35. (Previously Presented) The method of claim 1, wherein the receiving of up to the plurality of indications denoting the start of frame transmission includes receiving a plurality of Receive Data Valid signals.

36. (Previously Presented) The medium of claim 21, wherein the indication to denote commencement of the flow of frame transmissions that is received by the module of the program is a Receive Data Valid signal.

37. (Previously Presented) The method of claim 25, wherein the receiving of the at least one indication comprises receiving at least one Receive Data Valid signal.

38. (Currently Amended) A method comprising:

asserting control signals each denoting commencement of a frame transmission <u>of a flow sensitive to out-of-order frame sequences</u>;

identifying at least one receive buffer to receive all frames associated with the flow; and

assigning a pointer value to each frame without modification of a frame, the pointer value being based, at least in part, on a relative order in which the control signals associated with each frame are received, the corresponding pointer value associated with each respective frame being used to preserve a state of frame transmission order according to complete reception of the frame.